ABSTRACT

A luminous flux, from one conjugate surface (A), having an opening angle of at least 10° sequentially passes through a first optical system (30) having a luminous flux convergent action in the vicinity of its reference axis and a second optical system (31) having a luminous flux divergent action in the vicinity of its reference axis, and converges on another conjugate surface (B). A specific condition is given to the converging distance of each converging point at a luminous flux section including a principal ray according to the passing position of the luminous flux through the first optical system (30) to thereby implement an oblique-incident optical system having a half angle of at least 60° and a comparatively simple structure irrespective of a type of an optical element used.